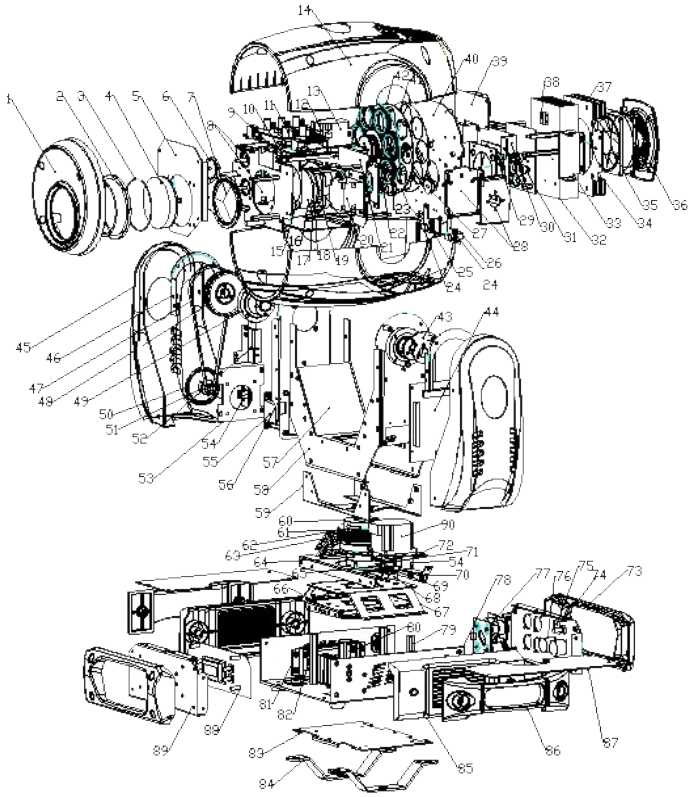
5 APPENDIX

5.1 MAINTENANCE



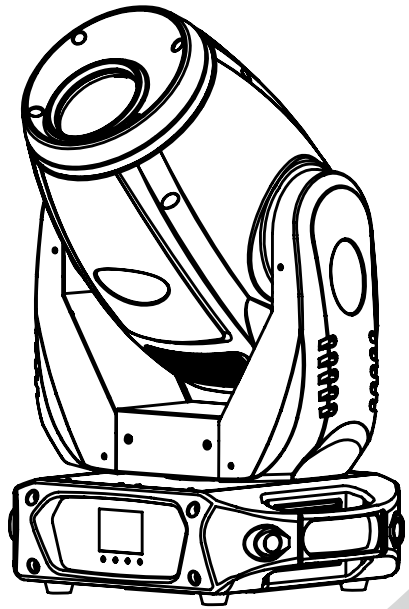
No	ITEM
1	plastic front cover of head
2	lens caps
3	front lens jump ring
4	Φ80 biprism
5	front lens fixed plate
6	Prism driving wheel
7	prism group
8	prism motor
9	synchronous belt
10	focus driven wheel group
11	driver board
12	focus driving wheel
13	focus lens motor
14	plactic head cover

No	ITEM
15	focus lens bracket
16	Φ62 flat convex lens
17	60 concave-convex lens
18	focus lens gasket
19	focus lens caps
20	Rotating gobo motor
21	gobo wheel bracket 2
22	synchronous belt
23	rotating gobo wheel
24	hall board
25	hall bracket 2
26	hall bracket 3
27	spinning pulley
28	Connection frame group

No	ITEM
29	fresnel
30	light lens holder
31	15°lens(7in1)
32	cooling fin
33	fixed frame for plastic head cover
34	fan bracket
35	90×90 fan
36	plastic back cover of head
37	clump weight
38	fixed frame for thermal protection device
39	driver board
40	gobo wheel bracket 1
41	color wheel
42	static gobo wheel

USER MANUAL

LED SPOT LIGHT
MS-400



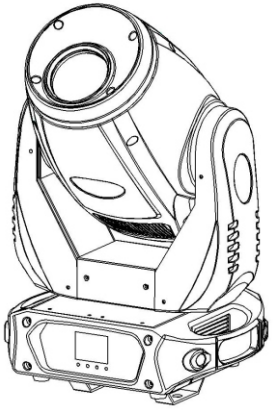
Please Read Over This Manual Before Operating The Light Fixture

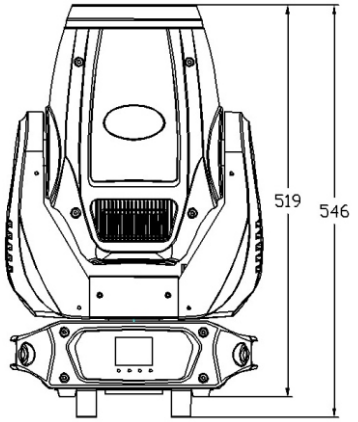
1 PRODUCT SPECIFICATIONS

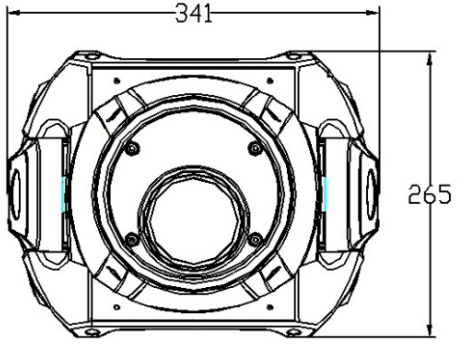
1.1 PRODUCT SPECIFICATIONS

The MS-400 is a precise, feature-rich moving head spot fixture that produces bright, even beams of light from its advanced led optical system which includes 7x high output CREE® LEDs. The combination of dual gobo wheels, a richly saturated color wheel, and a three-facet prism enables awesome effects and totally smooth gobo morphing!

•Voltage:AC90~260V 50/60Hz
•Max Power:130W
•Compact Intelligent Moving Head Fixture
•70W(7*10w)Cree Led Source
•7 Dichroic Colors+White
•11/14-Channel Dmx Control Modes
•4-button LCD Control Panel
•Pan:540°/Tilt:270°(8-16Bit Resolution)
•Dual Gobo Wheels
•Static Gobos:7 Metal+open
•Rotating Gobos: 2 Glass,4 Metal+Open
•Rotating 3-Facet Prism
•Variable Electronic Dimmer(0-100%)
•Electronic Focus
•Gobo-Flow,Rainbow-Flow+Shake w/Bi-Directional Rotation
•Multiple Built-in Auto & Sound Activated Programs
•Cooling System:Forced Convection Cooling
•Housing:Flame-Retardant Plastic(V0)
•Modes:DMX-512,Auto,Sound Active & Master-Slave
•Dimension:265x341x546mm
•Weight:33.1 Pounds(15kg)





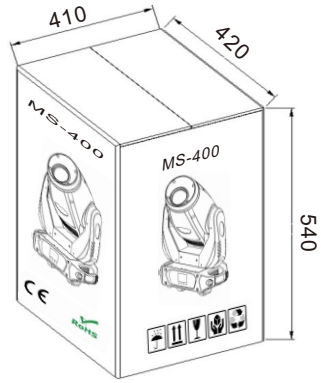


CHANNEL	VALUE	FUNCTION
6		**GOBO 2 ROTATION**
	0⇔60	360 °indexing
	61⇔150	Clockwise rotate from slow to fast
	151⇔165	No function
	166⇔255	Anti-clockwise rotate from slow to fast
7		**PRISM & PRISM ROTATION**
	0⇔4	White light
	5⇔9	Prism but not turn
	10⇔127	Anti-clockwise rotate from slow to fast
	128⇔132	Prism but not turn
	133⇔255	Clockwise rotate from slow to fast
8	0⇔255	**FOCUS** Far ▲ Near
9	0⇔255	**DIMMER** Dark Bright
10		**STROBE**
	0⇔10	Close
	11⇔220	Strobe: Slow > Fast
	221⇔230	Open
	231⇔245	Random strobe effect: Slow > Fast
	246⇔255	Open
11		**CONTROL**
	0⇔19	No function (After 3 S move light show board curve is preferred)
	140⇔149	Auto Program1
	150⇔159	Auto Program2
	160⇔169	Auto Program3
	170⇔179	No function
	180⇔189	Sound
	200⇔219	Reset
	220⇔255	No function
		Note: no use for empty when word control to no effect.

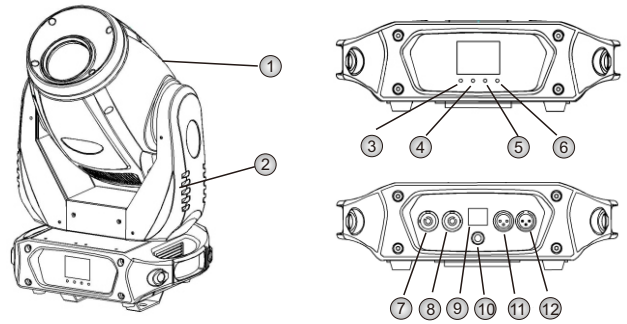
PERSON2

CHANNEL	VALUE	FUNCTION
1	0⇔255	**PAN** 0~540°
2	0⇔255	**PAN FINE** 0~270°
3		**COLOR**
	0⇔9	NO
	10⇔19	Color 1
	20⇔29	Color 2
	30⇔39	Color 3
	40⇔49	Color 4
	50⇔59	Color 5
	60⇔69	Color 6
	70⇔79	Color 7
	80⇔99	Color 7 → Color 6
	100⇔119	Color 6 → Color 5
	120⇔139	Color 5 → Color 4
	140⇔159	Color 4 → Color 3
	160⇔179	Color 3 → Color 2
	180⇔199	Color 2 → Color 1
	200⇔219	Color 1 → White
	220⇔255	Rainbow or linear effect
4		**GOBO1**
	0⇔10	NO GOBO
	11⇔20	GOBO 1
	21⇔30	GOBO 2
	31⇔40	GOBO 3
	41⇔50	GOBO 4
	51⇔60	GOBO 5
	61⇔70	GOBO 6
	71⇔80	GOBO 7
	81⇔95	Shaking gobo 1
	96⇔110	Shaking gobo 2
	111⇔125	Shaking gobo 3
	126⇔140	Shaking gobo 4
	141⇔155	Shaking gobo 5
	156⇔170	Shaking gobo 6
	171⇔185	Shaking gobo 7
	186⇔255	Flow effect
5		**GOBO 2**
	0⇔10	NO GOBO
	11⇔20	GOBO 1
	21⇔30	GOBO 2
	31⇔40	GOBO 3
	41⇔50	GOBO 4
	51⇔60	GOBO 5
	61⇔70	GOBO 6
	71⇔85	Shaking gobo 1
	86⇔100	Shaking gobo 2
	101⇔115	Shaking gobo 3
	116⇔130	Shaking gobo 4
	131⇔145	Shaking gobo 5
	146⇔160	Shaking gobo 6
	161⇔255	Flow effect

•Carton box dimension:410x420x540mm



1.2 PRODUCT FEATURES

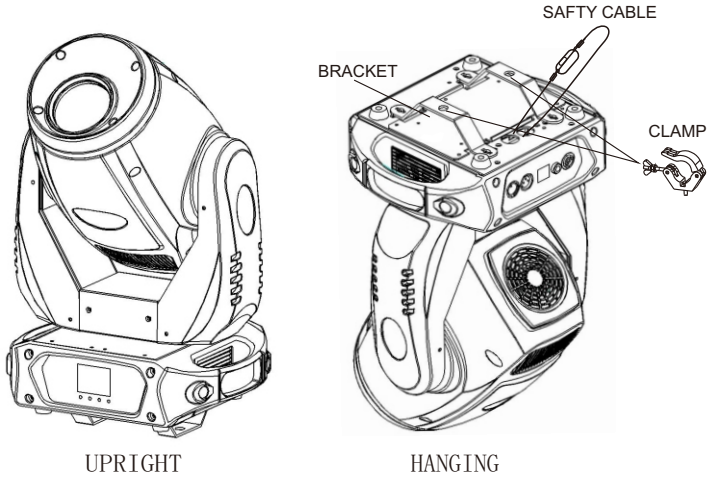


No	ITEM	No	ITEM	No	ITEM	No	ITEM
1	Head	4	Enter	7	Powercon input	10	Fuse holder
2	Side arm	5	Down	8	Powercon output	11	DMX 3-PIN signal input
3	Menu	6	Up	9	Switch	12	DMX 3-PIN signal output

2 INSTALLATION

2.1 MOUNTING：

- The fixture can be mounted in any position.
- Always ensure that mounting surface can withstand 10 times the weight of the fixture.
- Always use a safety cable when mounting the fixture in any elevated position.



IMPORTANT SAFETY NOTE!!
Always use a safety cable when installing this unit!!
Be sure that the safety cable is connected to a solid load-bearing structure.

CHANNEL	VALUE	FUNCTION
8		**GOBO 2**
	0 <=> 10	NO GOBO
	11 <=> 20	GOBO 1
	21 <=> 30	GOBO 2
	31 <=> 40	GOBO 3
	41 <=> 50	GOBO 4
	51 <=> 60	GOBO 5
	61 <=> 70	GOBO 6
	71 <=> 85	Shaking gobo 1
	86 <=> 100	Shaking gobo 2
	101 <=> 115	Shaking gobo 3
	116 <=> 130	Shaking gobo 4
	131 <=> 145	Shaking gobo 5
	146 <=> 160	Shaking gobo 6
	161 <=> 255	Flow effect
9		**GOBO 2 ROTATION**
	0 <=> 127	Gobo Position
	128 <=> 189	Gobo Rotation(CW):Slow→Fast
	190 <=> 193	Gobo Static
	194 <=> 255	Gobo Rotation(CW):Slow→Fast
10		**PRISM & PRISM ROTATION**
	0 <=> 4	White light
	5 <=> 9	Prism but not turn
	10 <=> 127	Anti-clockwise rotate from slow to fast
	128 <=> 132	Prism but not turn
	133 <=> 255	Clockwise rotate from slow to fast
11	0 <=> 255	**FOCUS** Far → Near
12	0 <=> 255	**DIMMER** Dark → Bright
13		**STROBE**
	0 <=> 10	Close
	11 <=> 220	Strobe: Slow > Fast
	221 <=> 230	Open
	231 <=> 245	Random strobe effect: Slow > Fast
	246 <=> 255	Open
14		**CONTROL**
	0 <=> 19	No function (After 3 S move light show board curve is preferred)
	140 <=> 149	Auto Program1
	150 <=> 159	Auto Program2
	160 <=> 169	Auto Program3
	170 <=> 179	No function
	180 <=> 189	Sound
	200 <=> 219	Reset
	220 <=> 255	No function
		Note: no use for empty when word control to no effect.

4 USING A DMX512 CONTROLLER

4.1 Channel Mode

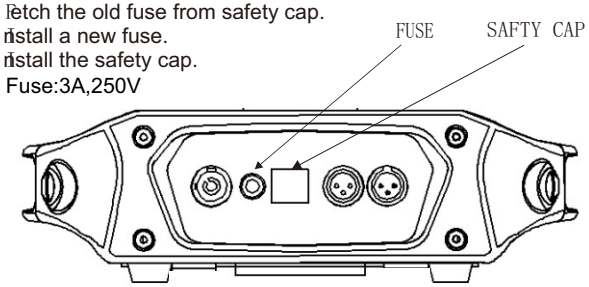
● Note: This product have two DMX512 channel configuration:
【**Standard**】 and【PERSON2】**.**

PERSON1

CHANNEL	VALUE	FUNCTION
1	0⇐⇒ 255	**PAN** 0~540°
2	0⇐⇒ 255	**PAN FINE** Fine control of tilt movement 0~3°
3	0⇐⇒ 255	**TILT** 0~270°
4	0⇐⇒ 255	**TILT FINE** Fine control of tilt movement 0~3°
5	0⇐⇒ 255	**PAN/TILT SPEED** From fast to slow
6		**COLOR**
	0 ⇐⇒ 9	NO
	10 ⇐⇒ 19	Color 1
	20 ⇐⇒ 29	Color 2
	30 ⇐⇒ 39	Color 3
	40 ⇐⇒ 49	Color 4
	50 ⇐⇒ 59	Color 5
	60 ⇐⇒ 69	Color 6
	70 ⇐⇒ 79	Color 7
	80 ⇐⇒ 99	Color 7 ⟶ Color 6
	100 ⇐⇒ 119	Color 6 ⟶ Color 5
	120 ⇐⇒ 139	Color 5 ⟶ Color 4
	140 ⇐⇒ 159	Color 4 ⟶ Color 3
	160 ⇐⇒ 179	Color 3 ⟶ Color 2
	180 ⇐⇒ 199	Color 2 ⟶ Color 1
	200 ⇐⇒ 219	Color 1 ⟶ White
	220 ⇐⇒ 255	Rainbow or linear effect
7		**GOBO1**
	0 ⇐⇒ 10	NO GOBO
	11 ⇐⇒ 20	GOBO 1
	21 ⇐⇒ 30	GOBO 2
	31 ⇐⇒ 40	GOBO 3
	41 ⇐⇒ 50	GOBO 4
	51 ⇐⇒ 60	GOBO 5
	61 ⇐⇒ 70	GOBO 6
	71 ⇐⇒ 80	GOBO 7
	81 ⇐⇒ 95	Shaking gobo 1
	96 ⇐⇒ 110	Shaking gobo 2
	111 ⇐⇒ 125	Shaking gobo 3
	126 ⇐⇒ 140	Shaking gobo 4
	141 ⇐⇒ 155	Shaking gobo 5
	156 ⇐⇒ 170	Shaking gobo 6
	171 ⇐⇒ 185	Shaking gobo 7
	186 ⇐⇒ 255	Flow effect

2.2 FUSE REPLACEMENT

● Remove the safety cap by a screwdriver.
● Fetch the old fuse from safety cap.
● Install a new fuse.
● Install the safety cap.
● Fuse:3A,250V



2.3 SAFETY WARNING

IMPORTANT

【ALWAYS READ THE USER MANUAL BEFORE OPERATION. 】
【PLEASE CONFIRM THAT THE POWER SUPPLY STATED ON THE PRODUCT IS THE SAME AS THE MAINS POWER SUPPLY IN YOUR AREA.】

● This product must be installed by a qualified professional.
● Always operate the equipment as described in the user manual.
● A minimum distance of 0.5m must be maintained between the equipment and combustible surface.
● The product must always be placed in a well ventilated area.
● Always make sure that the equipment is installed securely.
● DO NOT stand close to the equipment and stare directly into the LED light source.
● Always disconnect the power supply before attempting and maintenance.
● Always make sure that the supporting structure is solid and can support the combined weight of the products.

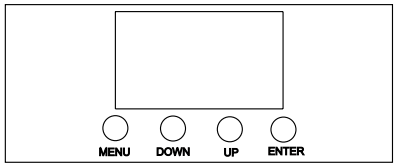
ATTENTION

● This product left the place of manufacture in perfect condition. In order to maintain this condition and for safe operation, the user must always follow the instructions and safety warnings described in this user manual.
● Avoid shaking or strong impacts to any part of the equipment.
● Make sure that all parts of the equipment are kept clean and free of dust.
● Always make sure that the power connections are connected correct and secure.
● If there is any malfunction of the equipment, contact your us immediately.
● When transferring the product, it is advisable to use the original packaging in which the product left the factory.
● Shields, lenses or ultraviolet screens shall be changed if they have become damaged to such an extent that their effectiveness is

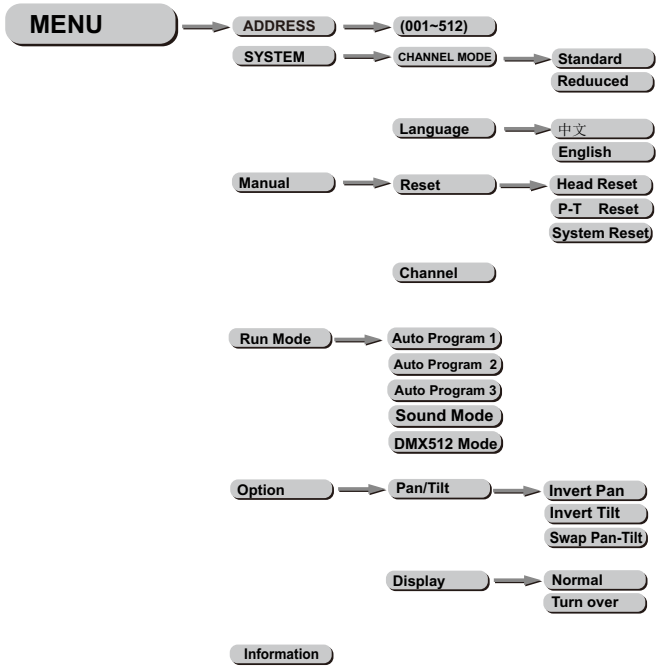
3 DISPLAY PANEL OPERATION

3.1 BASIC

【 MENU 】Scroll through the main menu or exit from the current sub-menu
【ENTER】Enter the currently selected menu or confirm the current function value
【 DOWN】Scroll 'DOWN' through the menu list or decrease the value of the current function
【 UP 】Scroll 'UP' through the menu list or increase the value of the Current function



3.2 MENU



3.7 Option

Pan/Tilt

Allows you to select the **Pan/Tilt**.

1) Press (Ok) - the current settings appear on the display (Invert Pan, Invert Tilt or Swap Pan-Tilt).
2) Use the UP (▲) and DOWN (▼) keys to select one of the following settings:
   - Invert Pan
   - Invert Tilt
   - Swap Pan-Tilt
3) Press (Ok) to confirm the selection or MENU (M) to keep current settings.

DISPLAY

Allows you to select the DISPLAY.

1) Press (Ok) - the current settings appear on the display (Normal, or Turnover).
2) Use the UP (▲) and DOWN (▼) keys to select one of the following settings:
   - Normal
   - Turnover
3) Press (Ok) to confirm the selection or MENU (M) to keep current settings.

Sonud Mode

Allows you to select the Sonud Mode.

1) Press (Ok) - the current settings appear on the display (OK, or Cancel).
2) Use the UP (▲) and DOWN(▼) keys to select one of the following settings:
   - OK
   - Cancel
3) Press (Ok) to confirm the selection or MENU (M) to keep current settings.

DMX512 Mode

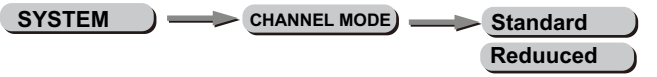
Allows you to select the DMX512 Mode.

1) Press (Ok) - the current settings appear on the display (OK, or Cancel).
2) Use the UP (▲) and DOWN(▼) keys to select one of the following settings:
   - OK
   - Cancel
3) Press (Ok) to confirm the selection or MENU (M) to keep current settings.

3.3 DMX ADDRESS (ADDRESS)

- Allows you to select the DMX ADDRESS.
  1) Press (Ok) - the current DMX Adress appear on the display.
  2) Use the UP (▲) and DOWN(▼) keys to plan the DMX Address.
  3) Press (Ok) to confirm the selection or MENU (M) to keep current

3.4 SyStem



. . . BACK

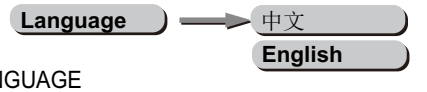
Allows you to select the ...

1) Press (Ok) - the current main form appear on the display.

CHANNEL MODE

Allows you to select the Channel Mode.

1) Press (Ok) - the current settings appear on the display (Standard, Reduced).
2) Use the UP (▲) and DOWN(▼) keys to select one of the following settings:
   - Standard
   - Reduced
3) Press (Ok) to confirm the selection or MENU (M) to keep current settings.

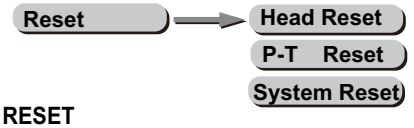


LANGUAGE

Allows you to select the LANGUAGE.

1) Press (Ok) - the current settings appear on the display (中文, or English).
2) Use the UP (▲) and DOWN(▼) keys to select one of the following settings:
   - 中文
   - English
3) Press (Ok) to confirm the selection or MENU (M) to keep current settings.

3.5 Manual



RESET

Allows you to select the RESET.

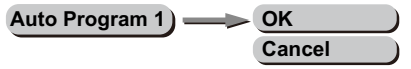
1) Press (Ok) - the current settings appear on the display (Head Reset, Pan-Tilt Rest or System Reset).
2) Use the UP (▲) and DOWN(▼) keys to select one of the following settings:
   - Head Reset
   - Pan-Tilt Reset
   - System Reset
3) Press (Ok) to confirm the selection or MENU (M) to keep current settings.

CHANNEL

Allows you to select the CHANNEL.

1) Press (Ok) - the current settings appear on the display (Channel1, Channel2, Channel3. . . Channeln).
2) Use the UP (▲) and DOWN(▼) tokeys select one of the following settings:
   - Channel1
   - Channel2
   - Channel3
   - . . .
   - Channeln
3) Press (Ok) to confirm the selection or MENU (M) to keep current settings.

3.6 Run Mode



Auto Program 1

Allows you to select the Auto Program1.

1) Press (Ok) - the current settings appear on the display (OK, or Cancel).
2) Use the UP (▲) and DOWN(▼) keys to select one of the following settings:
   - OK
   - Cancel
3) Press (Ok) to confirm the selection or MENU (M) to keep current settings.

Auto Program 2

Allows you to select the Auto Program2.

1) Press (Ok) - the current settings appear on the display (OK, or Cancel).
2) Use the UP (▲) and DOWN(▼) keys to select one of the following settings:
   - OK
   - Cancel
3) Press (Ok) to confirm the selection or MENU (M) to keep current settings.

Auto Program 3

Allows you to select the Auto Program3.

1) Press (Ok) - the current settings appear on the display (OK, or Cancel).
2) Use the UP (▲) and DOWN(▼) keys to select one of the following settings:
   - OK
   - Cancel
3) Press (Ok) to confirm the selection or MENU (M) to keep current settings.